## WHAT IS CLAIMED IS:

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1. Amino\acid sequence having more than 70% homology with the sequence SEQ ID NO 2.

2. Amino adid sequence according to claim 1, having more than 85% homo ogy with the sequence SEQ ID NO 2.

3. Amino acid\sequence according to claim 1 or 2, having more than 95% homology with the sequence SEQ ID NO 2.

4. Amino acid sequence corresponding to SEQ 2 or a portion thereof selected from the group consisting of the sequences comptised between:

- the glutamic acid in positionigl(1)13 and the glutamic acid in position 27,

- the alanine in position 26 andackslash the leucine in position 20 36,

- the alanine in position 42 and the glutamic acid in position 57,

- the glutamic acid in position  $5\sqrt{\hspace{-4pt}\sqrt{\hspace{-4pt}}}$  and the valine in position 69,

- the valine in position 80 and the  $\backslash$ leucine in position 97,

- the arginine in position 95 and the  $\lambda$ eucine in position 112,

30 - the serine in position 118 and the serine in position

the valine in position 137 and the threomene in position

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- the glutamic acid in position 13 and the cysteine in position 4%,
- the glutamic acid in position 13 and the glycine in position 38, and
- the leucine in position 36 and the cysteine in position 47,
- and the treonine in position 150 and the leucine in position 161.
- 5. Nucleotide sequence encoding the amino acid sequence according to any one of the preceding claims and presenting more than 70% homology with SEQ ID NO 1 or its complementary strand
- 6. Nucleotide sequence according to claim 5, having more than 85% homology with the sequence SEQ ID NO 1
  - 7. Nucleotide sequence according to claim 5 more than 95% homology with the sequence SEQ ID NO 1 or its complementary strand.
  - 8. Nucleotide sequence corresponding to the sequence SEQ ID NO 1, its complementary strand or a portion thereof selected from the group consisting of SEQ ID n° 7, SEQ ID n°8, SEQ ID n°9, SEQ ID n°11, SEQ ID n°12, SEQ ID n°13, SEQ ID n°14, SEQ ID n°15 and SEQ ID n°16.
  - 9. Vector comprising the nucleotide sequence according to any one of the claims 5 to 8.
  - 10. Inhibitor directed against the amino acid or nucleotide sequence according to any one of the claims 1 to 8.
  - 11. Inhibitor according to claim 10, being an antibody, preferably a monoclonal antibody, or a portion of said antibody.
  - 12. Diagnostic device comprising an element selected from the group consisting of the amino acid

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sequence according to any one of the claims 1 to 4, the nucleotide sequence according to any one of the claims 5 to 8, the inhibitor according to claim 10 or 11, their portions or a mixture thereof.

- 13 Method for the in vitro detection of lung injuries and diseases or oxidative stress-related diseases and disorders, especially inflammatory diseases, comprising the steps of :
- isolating a sample from a body fluid of a patient,
  preferably a human patient,
  - possibly inhibiting the contaminants present in said sample,
  - put in contact said sample with an element selected from the group consisting of the amino acid sequence according to any one of the claims 1 to 4, the nucleotide sequence according to any one of the claims 5 to 8, the inhibitor according to claim 10 or 11, their portions or a mixture thereof, and
  - detecting a reaction of a molecule present in said sample with said element.
- pharmaceutically acceptable carrier and an element selected from the group consisting of the amino acid sequence according to any one of the claims 1 to 4, the nucleotide sequence according to any one of the claims 5 to 8, the inhibitor according to claim 10 or 11, their portions or a mixture thereof.
- 15. Use of the pharmaceutical composition according to claim 14 for the manufacture of a medicament 30 for the prevention and/or the treatment of lung injuries or diseases, and of oxidative stress-related diseases or disorders, such as specific cardio-vascular diseases like arteriosclerosis, neurodegenerative disorders such as Alzheimer's disease, Parkinson's disease, amyotrophic

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lateral sclerosis, apoptosis and inflammatory reactions, allergic reactions such as asthma, hay fever and eczema, high bone mass syndrome, osteopetrosis, osteoporosis-pseudoglioma syndrome, and Bardet-Biedl syndrome 1.

- 16. Cell transformed by the vector according to claim 9 or comprising a total deletion of its nucleotide sequence according to any one of the claims 5 to 8.
- 17. Non-human animal, preferably a non-human mammal, transformed by the vector according to claim 9 or comprising a total deletion of its nucleotide sequence according to any one of the claims 5 to 8.

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